



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,542	09/27/2001	Russell A. Houser	010905	3879

7590 08/25/2004

RUSSELL A. HOUSER  
1787 VERDITE STREET  
LIVERMORE, CA 94550

EXAMINER

PHAM, HUONG Q

ART UNIT	PAPER NUMBER
----------	--------------

3764

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/965,542

Applicant(s)

HOUSER ET AL.

Examiner

Huong Q. Pham

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

**DETAILED ACTION**

Claims 6, 9, are objected for containing terms which lack proper antecedent basis: "opposing sides" (claim 6), "the sides" (claim 9).

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 8, 10- 11 are rejected under 35 U.S.C. 101 because the claimed structure, as recited, is inoperative and therefore lacks utility. The structure recited in the claims is incomplete and is not operative, because it does not contain all essential elements to be operative. The omitted essential element are: a second tightening link and a locking mechanism (for example, note the embodiments of figures 2a through 4b, 6a through 6b, 10a through 13a, 15a through 15b, etc.... Note that in these embodiments, i.e. "partially extends around", without a second tightening link and a locking mechanism for each tightening link, the device will not provide the claimed function as recited and will not function as an orthopedic device for reinforcing an anatomic joint of a body). For the embodiments of figures 1a -1b, 16a- 19b, etc...., the structure of the device as recited in claim 1 ("partially extends around") will not provide the claimed function, note that in order for these embodiments to provide the recited

Art Unit: 3764

function, the first and second tightening links would have to completely encircle around and compresses against the body of a wearer.

Claim 9 is objected to as being dependent on the rejected claim 7.

### ***Double Patenting***

Claims 1, 2, 5, 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 7, 9, 11 of copending Application No. 10/188,907. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 5, 6 of this application recite all the structure of claims 1, 6, 7, 9, 11 of copending Application No. 10/188,907.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, 5 -6, are rejected under 35 U.S.C. 102(b) as being anticipated by Cote. As for claims 1,2, 5, Cote shows a supper elastic support : spring wire A ( note that " super elastic" is a relative term) consisting of at least one tightening link ( figure 1, the top part of the spring wire A) consists of a curved preshaped configuration and partially extends around and capable of compresses against a body on one side of an anatomic joint, a spring link with a hinge J ( figure 3) integral to and extending from the tightening link A , a covering G . Note that the tightening link of Cote is capable of enlarging in response to an external expansion force and returning towards a preformed shape once the external expansion force is removed, and the spring link is capable of deflecting at the hinge J in response to an external, deflection force and returning to its resting shape upon removal of said external, deflection force. As for claim 6, note the locking mechanism H ( figure 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock in view of Davis, Kelly. As for claims 1, 5 and 11, Bullock teaches a super elastic support ( note that " superelastic is a relative term) having a tightening link A consists of a curved preshaped configuration, a spring link extending from the tightening link, a covering 1. While Bullock is silent about the material of the elastic cord A, Davis and Kelly teach the use of a super elastic memory alloy having a curved preshaped configuration ( figure 14 of Davis, figures 1 & 2 of Kelly). In view of the teaching of Davis or Kelly, it would have been obvious to an ordinary skill in the art at the time the invention was made to use a super elastic memory alloy for the brace of Bullock. The substitution of one material for another well known material in the art in order to provide the desired degree of elasticity or rigidity, is only a matter of obvious engineering choice which does not provide any unobvious result or novelty, and therefore is not patentable over prior art. Note that the superelastic material of Bullock, Kelly and Davis is capable of being " enlarges in respond to....". As for claims 2, 14, note the loop 2 of Kelly. As for claims 3, 10, note the hinge stop 2 of Bullock. As for claims 6, 9, note locking mechanism 6 of Bullock. As for claim 7, note that Bullock teaches first tightening links A located on both sides of the knee cap( figures 1 & 2) above the knee joint, second tightening links A located on both sides of the knee cap( figures 1 & 2 ) below the knee joint, and first and second spring links. As for claims 12, 13, Bullock teaches a first tightening link A with a curved between first and second sides ( note in figure 2 of Bullock, the curve extending from a first side ( at about #7 ) to a second side above the knee)

, a second tightening link ( beginning at the other side of the knee) with a curved between first and second sides ( note in figures 1 and 3 of Bullock, the curve extending from a first side ( at about #7 ) to a second side above the knee), at least one spring link ( extending from one side above the knee, around the back of the leg to the other side of and above the knee) , locking mechanism 6, 1, 8, C, 7 , and stiffening means 2 & B. As for claim 13, note that the radius of curvature of one side of the thigh is different from the radius of curvature of the other side of the thigh. As for claim 15, note the 2 spring links on both sides of the kneecap. As for claim 16, stiffening means 2 & B is capable of adjusting the vertical separation of the first and second tightening links ( note that claim is only a functional statement of intended use without any further positive limitation of structure). As for claim 17, note hinge structure at reference # 2 of figure 2 of Bullock. As for claim 19, note the wire of Davis and Kelly.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock in view of Davis, Kelly, and further in view of Greenfield. Greenfield teaches the use of nickel titanium material for a brace. In view of the teachings of Greenfield and Davis and Kelly (note the comments above relative to the teachings of Bullock , Davis, and Kelly), it would have been obvious to an ordinary skill in the art at the time the invention was made to use nickel titanium material for the elastic cord A of Bullock.

Art Unit: 3764

Claims 1, 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly. Kelly shows every claimed feature of claims 1, 2, 5 except for the recited covering. The provision of a means to cover a brace member for the purpose of providing comfort for a user is well known in the art, and does not provide any unobvious result or novelty, and therefore is not patentable over prior art. Note that an ordinary skill in the art it would have been obvious to an ordinary skill in the art at the time the invention was made to leave out the coupling members 4, 11, and make the bar 1 a unitary bar consisting of one tightening link and one spring link, if the need for sizing or height adjustment is not desired.

Claims 1, 2, 5, 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis. As for claim 1, 5, 6, Davis shows every claimed feature of the claims (figure 14) except for a covering. The provision of a means to cover a brace member for the purpose of providing comfort for a user is well known in the art, and does not provide any unobvious result or novelty, and therefore is not patentable over prior art. As for claim 2, official notice is taken that the provision of loop for a spring link is very well-known in the art and therefore is not patentable over prior art.

Applicant's arguments filed on June 4, 2004 with respect to claims 1-19 have been considered but are not persuasive. Note the comments relative to the claims above. With respect to the double patenting rejection, applicant argues

Art Unit: 3764

that " the claims of 10/188, 907 describe a radial component that completely extends around the atomic joint" . Note that this limitation is not in claims 1, 6, 7, 9, 11 of application # 10/188,907. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bullock teaches the use of elastic material for the cord A . Davis and Kelly teach the use a super elastic memory alloy for a brace . The substitution of one elastic material for another well known elastic material in the art in order to provide the desired degree of elasticity , is only a matter of obvious engineering choice which does not provide any unobvious result or novelty, and therefore is not patentable over prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (703) 305-5129. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on (703) 308 - 2698. The fax phone numbers for the organization where this application or proceeding

Art Unit: 3764

is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



NICHOLAS D. LUCCHESI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

\*\*\*

August 18, 2004